

Clearing the Manteca Bottleneck

It was a 10-mile bottleneck from Manteca to Stockton, an important trade corridor that links the northern and southern central valley, and anyone who used State Route 99 knew it. That particular stretch of constricted highway slowed the movement of goods, added frustrating delay for commuters, and increased the emission of greenhouse gases associated with global climate change.

While the need to open that bottleneck was never in question, the project team still faced many challenges in timing and funding before completing it in July.

This \$158 million project widened SR-99 from four to six lanes, beginning south of State Route 120 to just north of Arch Road, adding a lane in each direction within the existing median. Within the project limits, over 108,000 vehicles traveled along the highway each day. This new stretch of highway has improved traffic flow and saved motorists a daily delay average of 12,592 hours. This meant that motorists now had 18 continuous miles of three-lane highway in each direction through Stockton and Manteca, as it combined with the South Stockton Widening project (4 miles) and the prior widening to the north from State Route 4 to Hammer Lane (4 miles) in Stockton. The project also replaced the Main Street/Lathrop Road Interchange, reconstructed the French Camp/ Turner Station Interchange, constructed soundwalls and concrete median barriers and installed ramp metering for more efficient use of the system. The newly incorporated ramp meters are the first in three counties along SR-99 (Merced, Stanislaus and San Joaquin).

In many ways, the project was a race against time. Because it relied on Proposition 1B funds, it had to be ready for construction no later than December 2012. That meant Caltrans and the project development team had to quickly deliver the project and award the contract to a construction firm. Meeting the Proposition 1B requirements also meant a compressed timeline to acquire property for the interchanges. In addition, the team had to align environmental requirements with need and purpose, while addressing community concerns regarding the location and configuration of the Main Street/ Lathrop Road Interchange.

To overcome these schedule challenges, the project development team—which included the San Joaquin Council of Governments (the project sponsor), Caltrans District 10 Program Project Management (owner operator/project manager), San Joaquin County, the city of Manteca and the architectural and engineering firm HDR Inc.—met to strategize several times, held multiple community meetings and ultimately decided to deliver the project as four separate construction projects. The mainline widening portion came first, followed by the two interchanges, and finally the mitigation planting/landscape project (not yet constructed due to the drought). This would allow for sequencing of the project, more competitive bidding and potential overall cost savings.

By delivering the widening portion of the project first, Caltrans was able to take advantage of a slack construction market, which garnered favorable bids. Declining oil prices also yielded savings. Across the board, the weakened economy meant costs were lower than originally anticipated. The combination of these factors saved \$92 million dollars that was allocated instead to other projects along the SR-99 corridor.

The final phase of the project involves the replacement and mitigation planting after all roadway construction is complete and funded with the local measure funding. Separating the project into phases proved beneficial in allowing Caltrans to revamp the final phase of landscaping to incorporate drought-resistant plants. Caltrans anticipates that work on this phase will begin in the spring of 2018.

Funding came from a variety of sources: \$36 million from Measure K, the half-cent sales tax dedicated to transportation projects in San Joaquin County, and \$89 million from Proposition 1B—the \$19.9 billion transportation bond approved by California voters in 2006. The remaining \$33 million came from the State Transportation Improvement Program. Through a partnership between Caltrans, the city of Manteca and local agencies, 17 businesses were relocated and stayed in the city without a loss of business, and the new highway extension can attract new business.

"With the collaboration of local and state organizations it's really government at its best when we all work together for the cause of the people" said Caltrans Deputy Director Kome Ajise.

Lessons learned:

When staging a project that was originally one large project, timing is extremely important and transitions between the projects need to be carefully thought out. This was one aspect of this project that could have been done better, according to project leaders. Their biggest challenge, they concluded, was communication. For example, if one segment of a contract needs to be completed prior to another segment from a different contract, that should be spelled out in the project specifications. If there is a delay in the project funding for one segment, project leaders concluded, revisiting the stages is important to identify any conflicts or work that could be moved from one segment to another for ease of construction and efficiency.

Even with those challenges, the bottleneck was opened, that stretch of highway is safer and more efficient, and all phases of the project were delivered on time.

Source: Caltrans District 10

Contributors: Joy Pinne and Greg Lawson

